

Kennecott
10 East South Temple
P.O. Box 11248
Salt Lake City, Utah 84147
(801) 322-8261

Robert A. Malone
Director, Environmental Affairs

FILE: ACT/035/002
All attachments under
review, then to be filed.

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DEC 03 1985

DIVISION OF OIL
GAS & MINING

Kennecott

December 2, 1985

Ms. Diane Nielsen
Director, Utah Division of Oil, Gas and Mining
Three Triad Center
Suite 350
Salt Lake City, Utah 84180

SUBJECT: Utah Copper Division Mining and
Reclamation Plan Amendment

Dear Ms. Nielsen:

Enclosed for your review is Kennecott's proposed amendment to our existing Mining and Reclamation Plan for Utah Copper Division. This amendment reflects the changes which will occur in our mining operation as a result of our recently announced modernization plans. Kennecott's existing Mining and Reclamation Plan identifies 23,000 acres of property to be utilized for mining and processing activities. The modernization amendment identifies an additional 350 acres, or 1.5% of the currently approved acreage, which will be utilized for ore transfer and ore processing facilities. There will be no changes in the areas used for mining, mine waste disposal, excess mine water disposal, tailings disposal and excess process water disposal.

Detailed information about the modernization project has been previously submitted to the Division. Since the submission, the scope of the project has been altered. The current scope includes crushing the ore at the pit in one movable crusher, conveying the ore to a new grinding plant located approximately one mile north of Copperton, grinding the ore in the new plant and transporting the ore via a slurry pipeline to the Magna and Arthur plants for additional processing through the existing facilities. A general process flow diagram is attached, along with an updated grinding plant site plan. The conveyor routing and slurry pipeline routing are unchanged from our previous submission.

Also enclosed is the additional information listed below which was requested by the Division's staff:

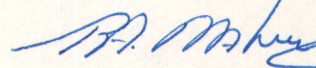
- o Final Geotechnical Investigation Report, Volume I
- o Final Geotechnical Investigation Report, Volume II
- o Flotation Feed System Pipeline Plan with Pipeline Crossings

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December 2, 1985
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Kernecott's schedule of construction calls for site grading to begin at the grinding plant location in January, 1986. Excavation for foundation construction is scheduled for March 1986. This tight schedule is necessary to meet a September 1988 start-up date for the modernized facilities. We appreciate your prompt attention to this plan amendment. Mr. Al Trbovich (322-8371) is available to your staff to expedite the resolution of any questions or concerns the Division may have.

Very truly yours,



R. A. Malone

/mf
Enclosure

cc: L. K. Jacobsen, w/encl.
S. D. Taylor, w/encl.
A. M. Trbovich, w/encl.
C. K. Vance, w/encl.

AMENDMENT TO THE KENNECOTT UTAH COPPER DIVISION
MINING AND RECLAMATION PLAN

Preamble - There are no changes to the Preamble.

- A. Applicant - The applicant is Kennecott Corporation, Utah Copper Division.
- B. Type of Operation - The operation includes mining and processing for mineral extraction. Detail about the new mining and processing facilities is included in the previously submitted documents:
- o Project Overview and Environmental Considerations - Bingham Canyon Mine Modernization.
 - o Project Overview and Environmental Considerations - Copperton Concentrator.
 - o Project Overview and Water Management Plan for UCD Concentrator Modernization Project.

A more general discussion of the changes in the seven areas examined in our approved Plan is provided below:

1. Mine Area - The mine area from which overburden and ore is removed will not change and will continue to involve 3,100 acres.

The mining sequence of drilling, blasting, loading by shovel, and haulage by truck will remain unchanged. Railroad haulage will no longer be used for ore or waste. Ore will be hauled by truck to an in-pit movable crusher. After crushing, the ore will be conveyed out of the pit to a new grinding facility located approximately one mile north of Copperton. Waste will be hauled by truck to the existing waste dumps.

The modernization and other technological advances, such as innovative dewatering techniques, will allow maintenance of stable pit slopes as a function of specific rock type and moisture conditions in the various sections of the mine. At the conclusion of mining, pit sides will be stabilized at a slope of 30° to 50° from horizontal as a function of location in the mine.

2. Mine Waste Disposal Area - There will be no changes in the mine waste disposal area except that all waste will be hauled by truck.
3. Excess Mine Water Disposal Area - There will be no changes in the excess mine water disposal area as a result of modernization. Kennecott is conducting an extensive surface water study. The results of this study may change water usage practice. Kennecott is also conducting a detailed five-year study relevant to this area in cooperation with the State of Utah and Salt Lake County. Any recommendations for amendment of this area will be forthcoming after the study is completed.

4. Ore Transfer--Mine to Process Area - Ore will no longer be transported directly to the existing concentrators near Magna. Instead, the ore will be conveyed to a grinding plant located one mile north of Copperton. Approximately 37 acres of right-of-way between the mine and grinding plant will be disturbed by the construction of the conveyor. After construction is completed, the right-of-way will be replanted with a mixture of grass seeds. When the conveyor is no longer needed for mining or other activities, the surface structures will be removed. The area will then be returned to the farming and pasture usage currently ongoing on the property.

The existing railroad between the mine and the facilities near Magna will be maintained and will be used for the transport of precipitate copper and general freight.

5. Ore Processing Facilities Area - Ore will be received via conveyor at a coarse ore stockpile located at a new ore grinding plant north of Copperton. Ore will be reclaimed from beneath the pile and will be ground in semi-autogenous (SAG) mills and ball mills. The ground ore will be gravity slurried, via pipeline, to the existing concentrators for additional processing through the existing facilities.

The grinding plant will be located on a 100-acre site currently under cultivation for wheat. Following construction, the disturbed but undeveloped areas will be replanted. When the grinding plant is no longer needed for mining or other activities, the surface structures will be removed. The area will then be returned to agriculture or will be available for other types of development.

The pipeline corridor will pass through areas used for wheat cultivation, pasturage, railroad right-of-way, manufacturing, and mining. Approximately 210 acres of the corridor will be on land previously undeveloped for mining or manufacturing purposes. After construction is completed, the disturbed areas within the pipeline right-of-way will be replanted with a mixture of grass seeds. When the slurry pipeline is no longer needed for mining or other activities, the surface structures will be removed. The area will be returned to agriculture or will be available for other types of development.

6. Tailings Disposal Area - There will be no changes in the tailings disposal area. The existing 6,000-acre tailings pond near Magna will continue in use.
7. Excess Process Water Disposal Area - There will be no changes in the excess process water disposal area. The existing facilities located on approximately 1,000 acres of land around the tailings disposal area will continue in use. Any excess water is discharged under the provisions of NPDES Permit UT-0000051. The discharge criteria may be modified in the future as a result of the surface water study cited in Section 3.